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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/511,162	10/14/2004	Helmut Winterling	53429	9022
26474 7590 01/07/2008 NOVAK DRUCE DELUCA + QUIGG LLP 1300 EYE STREET NW SUITE 1000 WEST TOWER WASHINGTON, DC 20005			EXAMINER ZEMEL, IRINA SOPJIA	
			ART UNIT 1796	PAPER NUMBER
			MAIL DATE 01/07/2008	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/511,162	Applicant(s) WINTERLING ET AL.	
	Examiner Irina S. Zemel	Art Unit 1796	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 October 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 1-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mohrschladt et al USP 6,316,588 or Mohrschladt et al (USP 6,288,207).

The rejection stands as per reasons of record.

Response to Arguments

Applicant's arguments filed 10-19-2007 have been fully considered but they are not persuasive.

The applicants provided a reference that explains that the BET is not only associated with the external surface of the particle , but with other factors such as presence of pores. The examiner thank the applicants for providing the reference, however, the examiner fully aware of this fact. The applicants further state that based on the explanation provided in the reference, "Applicants hope that the Examiner will no longer maintain the erroneous position that smaller sized catalyst particles are particles that have higher BET surface area. This erroneous position seems to have hindered the Examiner's understanding of the claimed invention, as well as the showing of unexpected results achieved by the claimed invention." The examiner regrets to disappoint the applicants in their hopes, as she maintains the position that, indeed, smaller sized catalyst particles are particles that have higher BET surface area, given all

other parameters equal. While the presence of the pores and their sizes is a factor influencing the BET property, as clearly evident from the reference, size is also a factor associated with the surface area of a particle (the clause "surface area is not only associated with the external surface of the particle" clearly implies that it is at least one of the factors.)

The applicants argue that other factors, such as the presence of pores and pore size contribute to BET property of a given particle. This, is, undoubtedly so. However, there is no evidence on the record that the particles used in illustrative examples have lower BET due to those factors and not the particle size itself.

The applicants further argue that they have demonstrated surprising reduction in the amount of titanium dioxide in the final product when using the particles of the claimed BET property. The examiner, as noted before, does not consider this property unexpected, as this reduction can be attributed to the increase in particle size of the catalyst (which IS a factor in BET property). It is only common sense that particles of smaller size gets carried away and get trapped in the final product more easily, especially in the flow tube continuous reactors.

The examiner agrees that should the particle size of the catalyst used in comparative and illustrative examples be the same, the decrease in the catalyst amount in the final product is unexpected. However, there is absolutely nothing on the record that provides any evidence that the BET property of the particles used in the illustrative examples was decreased due to factors other than particle agglomeration upon treatment of the particles at high temperature. It is further noted that the specification

provides absolutely no explanation of what the "conditioning at 500 C for 20 hours" is and what physical process takes place during such conditioning. The specification only provides the result of such conditioning, i.e., decrease of BET as compared to "unconditioned" product. Since particle size increase (such as resulting from particles agglomeration) will lead to BET decrease as it is likely the result of heat conditioning, there is no clear and convincing evidence of unexpected results

The examiner already noted that she considers the retention of the same catalytic activity of the catalyst with lower BET (as compared to the catalysts of higher BET) unexpected. However, once again, there is no evidence of such catalytic activity on the record other than a mere statement to that fact which is unsupported by any evidence.

Thus, when a very strong prima facie obviousness is established on the record, which is not even argued by the applicants in their response, the showing of unexpected results to rebut such obviousness case must be of such weight and significance as to clearly show significance greater than expected properties taught by the prior art. In the instant case, in the absence of clear showing of significance of unexpected results (that includes clear evidence those results being attributable to factors other than particle size) the results on the record is considered insufficient to outweigh the established prima facie case of obviousness.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Irina S. Zemel whose telephone number is (571)272-0577. The examiner can normally be reached on Monday-Friday 9-5.

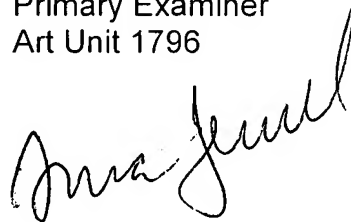
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Seidleck can be reached on (571)272-1078. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Irina S. Zemel
Primary Examiner
Art Unit 1796

A handwritten signature in black ink, appearing to read 'Irina Zemel', is written over the printed name and title.

ISZ